

## CLAIMS:

1. Assembly for generating and recording sound, comprising an electromagnetic transducer (1) for transforming electrical energy into acoustical energy, wherein the assembly comprises at least one microphone (2), wherein at least part of said microphone (2) is located within said transducer (1).
- 5 2. Assembly according claim 1, wherein said microphone (2) is positioned substantially within said transducer (1).
3. Assembly according to claim 1, wherein an outer surface (F) of said transducer  
10 (1) comprises at least one air passage (13) for bringing said microphone (2) into contact with ambient air.
4. Assembly according to claim 1, wherein the transducer (1) comprises a coil (5)  
15 for actuating a sound generating element (4).
5. Assembly according to claim 4, wherein said microphone (2) is at least  
partially surrounded by said coil (5).
6. Assembly according to at least claim 4, wherein said sound generating element  
20 comprises a cone (4).
7. Assembly according to claim 6, wherein said cone (4) comprises a central cap  
(10), wherein said microphone (2) is located behind said cap (10).
- 25 8. Assembly according to claim 4, wherein the transducer (1) comprises a  
magnetic means (6) for cooperation with said coil (5) for the actuation of the sound  
generating element (2), wherein said microphone (2) is connected to said magnetic means  
(6).

9. Assembly according to claim 8, wherein said magnetic means comprises a magnet core (7), wherein said microphone (2) is attached to said core (7).
10. Assembly according to claim 9, wherein said coil (5) partly surrounds said magnet core (7).  
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11. Assembly according to claim 9, wherein said magnet core (7) is provided with a microphone aperture (12) containing at least part of said microphone (2).
- 10 12. Assembly according to claim 11, wherein a sound receiving part (16) of said microphone (2) is located outside the area which is enclosed by both said coil (5) and said magnet core (7).
13. Assembly according to claim 11, wherein said microphone aperture (12) is surrounded by a substantially rotation-symmetrical part (17) of said core (7).  
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14. Assembly according to claim 9, wherein said microphone (2) is connected to electrical wire means (11) extending through said magnet core (7).
- 20 15. Assembly according to claim 1, wherein said microphone (2) is located on the centre line (z) of the transducer (1).
16. Apparatus for generating and recording sound, comprising the assembly according to any one of the preceding claims.  
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17. Use of the assembly according to any of claims 1 to 15, wherein sound is recorded by said microphone (2) of said assembly (1, 2).
18. Use according to claim 17, wherein, at the same time, sound is produced by the respective transducer (1) of the same assembly (1, 2).  
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19. Use according to claim 18, wherein the sound recorded by said microphone (2) of said assembly (1, 2) is used to adjust the sound generated by said transducer, for instance by utilizing feed back means.

20. Use according to claim 17, wherein the sound recorded by the microphone (2) of the assembly (1, 2) is used to calibrate at least one amplifier transfer function.